

REMARKS

Claims 1-10 and 13-16 are now pending. Claims 1-10 have been amended. Claims 11-12 are canceled. Claims 13-16 have been added. Applicants respectfully request reconsideration and reexamination of the pending claims.

Restriction Requirement

Applicant hereby affirms the election without traverse of Group I, Claims 1-10, in response to the Examiner's restriction requirement. Claims 11 and 12 have been canceled without prejudice for later filing in a divisional application.

Allowable Subject Matter

Applicant gratefully acknowledges the Examiner's indication that Claims 2-4 and 8 are allowable if rewritten into independent form. Accordingly, Claims 2 and 8 have been rewritten into independent form and are therefore allowable.

Claims 3-6 depend from Claim 2 and are therefore allowable for at least the same reasons as Claim 2. Claims 9 and 10 depend from Claim 8 and are therefore allowable for at least the same reasons as Claim 8.

Rejection under 35 U.S.C. 102

Claims 1, 5-7, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhao et al. Applicant respectfully traverses the rejections for the reasons below.

Claim 1 sets forth, *inter alia*, a first plate positioned within the processing chamber "configured to receive a first gas through a first passage into said first internal cavity at a first temperature and to emit said first gas from said first internal cavity into said processing area at a second temperature through a second passage." Applicant could find no teaching or suggestion on Zhao et al. disclosing such a feature.

Instead, Zhao et al. discloses a liquid heat exchange system 6 which delivers liquid to various components of chamber 30 "to maintain these components at a suitable temperature during the high temperature processing." (Col. 10, lines 49-52) Zhao et al. is disclosing a system, which is used to keep the components of the system from overheating, similar to a radiator in an automobile. There is no teaching or suggestion in Zhao et al. that the gas entering the system would enter at a first temperature and then be emitted at a second

temperature into a processing area. Accordingly, Claim 1 is allowable over the cited reference.

Claim 7 sets forth, *inter alia*, at least one heatable plate including “an internal cavity defining an internal wall and configured to receive a gas at a first temperature; means for heating said internal wall to a preselected temperature; and an outlet portion defining a plurality of holes for emitting said gas at a second temperature.” Applicant could find no teaching or suggestion in Zhao et al. of such features.

As mentioned above, Zhao et al. discloses a heat exchange system for cooling the components of the system. The heat exchange system in Zhao et al. does not anticipate “means for heating said internal walls to a preselected temperature” so that a gas entering the internal cavity at a first temperature exits at a second temperature.

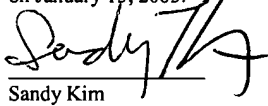
Instead, Zhao et al. teaches lowering the temperature of the components of the system, not to affect the temperature of gas entering the reactor, but to keep the system from overheating. (col. 10, lines 52-55)

New Claims 13 and 14 depend from Claim 1 and are therefore allowable for at least the same reasons as Claim 1. New Claims 15 and 16 depend from Claim 7 and are therefore allowable for at least the same reasons as Claim 7. No new matter has been added with the addition of Claims 13-16, since Claims 13-16 repeat the subject matter of original Claims 5, 6, 9 and 10, respectively.

CONCLUSION

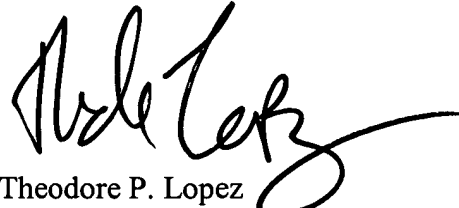
For the above reasons, pending Claims 1-10 and 13-16 are now in condition for allowance and allowance of the application is hereby solicited. If the Examiner has any questions or concerns, the Examiner is hereby requested to telephone Applicant's Attorney at (949) 752-7040.

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on January 13, 2003.


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Respectfully submitted,



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ATTACHMENT A

1. (Amended) A system for processing a semiconductor device, the system comprising:

a processing chamber defining a processing area; and

a first plate positioned within said processing chamber and defining a first internal cavity configured to receive a first gas through a first passage into said first internal cavity at a first temperature and to emit said first gas from said first internal cavity into said processing area at a second temperature through a second passage.

2. (Amended) A system for processing a semiconductor device, the system comprising:

a processing chamber; and

a first plate positioned within said processing chamber and defining a first internal cavity configured to receive a first gas through a first passage into said first internal cavity at a first temperature and to emit said first gas from said first internal cavity at a second temperature through a second passage; and [The system of Claim 1, further comprising]

a second plate disposed adjacent to said first plate, wherein said second plate defines a second internal cavity configured to receive a second gas through a first passage into said second internal cavity at a first temperature and to emit said gas from said second internal cavity at a second temperature through a second passage.

3. (Amended) The system of Claim 2, wherein said second passage[s] comprise a plurality of holes defined on a surface of said first and said second plates.

4. (Amended) The system of Claim 2, wherein said first plate and said second plate comprise[s] a heat source for heating said plate to a preselected temperature.

5. (Amended) The system of Claim 2 [1], wherein said first gas is taken from the group consisting of N₂, He, H₂, O₂, Ar and gas mixtures containing He, H₂, O₂, Ar and N₂.

6. (Amended) The system of Claim 2 [1], wherein said internal cavity further comprises a buffer to disperse said first gas throughout said internal cavity.

7. (Amended) A system for wafer processing comprising:
a chamber; and
at least one heatable plate positionable within said chamber, including:
an internal cavity defining an internal wall and configured to receive a gas at a first temperature;
means for heating said internal wall to a preselected temperature; and
an outlet portion defining a plurality of holes for emitting said gas at a second temperature.

8. (Amended) A system for wafer processing comprising:
a chamber; and
at least one heatable plate positionable within said chamber, including:
an internal cavity defining an internal wall and configured to receive a gas;
means for heating said internal wall to a preselected temperature; and
an outlet portion defining a plurality of holes for emitting said gas; [The
system of Claim 7, wherein] said at least one heatable plate including [comprises] a first heatable plate and a second heatable plate disposed having adjacent surfaces configured to receive a wafer therebetween.

9. (Amended) The system of Claim 8 [7], wherein said gas is taken from the group consisting of He, H₂, O₂, Ar, N₂ and gas mixtures containing He, H₂, O₂, Ar, and N₂.

10. (Amended) The system of Claim 8 [7], wherein said internal cavity further comprises a buffer to disperse said first gas throughout said internal cavity.

Please cancel Claims 11 and 12.